

CHAPTER 4

International Strategies in the Global Market

Chapters 2 and 3 reveal that both exports and foreign direct investment play an important role in the globalization of food markets. Although exports appear relatively less important than foreign affiliate sales in the aggregate, an examination of firm level data shows that the importance of exports and foreign affiliate sales varies among firms. Table 22 shows estimates of exports and foreign affiliate sales for 73 U.S. firms involved in food processing. Every firm exports, but 39 also supply processed food through their foreign affiliates. Among these firms, the ratio of foreign affiliate sales to exports varies from less than 1 to 61. The variation in the relative importance of exports and foreign affiliates among firms suggests that the optimal strategy for supplying foreign markets for each firm varies as well.

The variation in firm strategies for supplying foreign markets may have implications for U.S. policy. Current U.S. policy seeks to encourage the export of high-value products. Firms, however, have a variety of methods for placing their product in foreign markets. In addition to exports and foreign affiliates, firms can use joint ventures, licenses, or other forms of strategic alliances to supply foreign markets. As a result, the efficacy of U.S. export policy depends, in part, on the factors that lead firms to choose exports rather than an alternative production arrangement and on the relationship among various arrangements. Without an understanding of firms' strategies for supplying foreign markets and the effect of particular strategies on the export of U.S. processed foods, policymakers may be unable to set realizable goals or allocate resources effectively.

The analysis in this chapter focuses on the manufacturers of processed foods. For the most part, the retail and wholesale sectors of food processing do not produce goods for export. These sectors add value to a processed food product in terms of the service they

Table 22—Foreign sales of selected U.S. food manufacturers, 1992-93

Company	Exports	Foreign affiliate sales	Foreign affiliate sales/exports
	- - - Million dollars - - -		<i>Ratio</i>
Ag Processing Inc.	97.989	170.606	1.74
Agway	0.985	0.000	0.00
Agripac Foods Inc.	11.775	0.000	0.00
American Brands	44.000	417.600	9.49
American Home Products	56.800	0.000	0.00
American Maize Products	15.200	0.000	0.00
Anheuser Busch Cos. Inc.	608.400	968.900	1.59
Archer Daniels Midland Co.	937.482	2,232.100	2.38
Blue Diamond Growers	63.243	0.000	0.00
Borden Inc.	64.450	930.400	14.44
Bristol Myers Squibb	98.000	153.000	1.56
Brown-Forman Corp.	65.487	47.397	0.72
Campbell Soup	94.000	1,930.470	20.54
Canandaigua Wine Inc.	0.500	0.000	0.00
Chock Full O'Nuts	0.252	0.000	0.00
Chiquita Brands International Inc.	57.590	1,380.954	23.98
Citrus World Inc.	25.430	0.000	0.00
Clorox	3.097	80.732	26.07
Coca-Cola Co.	207.000	9,351.000	45.17
Colgate-Palmolive	64.000	0.000	0.00
ConAgra Inc.	1,328.883	1,310.922	0.99
Coors	114.523	0.000	0.00
CPC International Inc.	70.922	4,325.700	60.99
Curtice-Burns Inc.	15.160	46.582	3.07
Dean Foods Co.	144.680	5.000	0.03
Dole Foods Co.	66.167	1,657.000	25.04
Dial Corp.	6.000	0.000	0.00
Doskocil Cos. Inc.	6.482	0.000	0.00
Farmland Industries	32.700	0.000	0.00
General Mills Inc.	175.000	415.200	2.37
Gerber Products Co.	43.980	126.000	2.86
Gold Kist Inc.	27.511	0.000	0.00
Grace (W.R.) & Co.	8.800	297.800	33.84
Heinz (H.J.) Co.	105.297	3,053.473	29.00
Hershey Foods Corp.	197.450	407.920	2.07
Hormel (Geo. A.) & Co.	106.169	0.000	0.00
I.B.P. Inc.	1,388.896	0.000	0.00

Continued—

**Table 22— Foreign sales of selected U.S. food manufacturers
1992-93—continued**

Company	Exports	Foreign affiliate sales	Foreign affiliate sales/exports
	- - - Million dollars - - -		<i>Ratio</i>
International Flavors & Fragrance Inc.	6.363	293.640	46.15
Kellogg Co.	97.300	2,511.500	25.81
Knouse Foods Inc.	9.075	0.000	0.00
Land O'Lakes Inc.	106.000	0.000	0.00
McCormick & Co. Inc.	76.188	217.889	2.86
MM/MARS	120.000	4,000.000	33.33
Multifoods	28.354	556.100	19.61
Monsanto	70.500	0.000	0.00
Norpac Foods Inc.	17.146	0.000	0.00
Ocean Spray Cranberries Inc.	98.020	0.000	0.00
Orange-Co. Inc.	4.222	0.000	0.00
PepsiCo Inc.	247.800	5,381.600	21.72
Pet Inc.	26.424	261.900	9.91
Philip Morris Cos. Inc.	1,340.000	11,945.000	8.91
Proctor & Gamble Co.	101.000	329.000	3.26
Quaker Oats Co.	120.400	2,024.900	16.82
Ralston Purina	149.200	1,576.700	10.57
Riceland Foods Inc.	232.050	0.000	0.00
RJR Nabisco	243.000	1,540.000	6.34
Sara Lee Corp.	184.000	2,344.000	12.74
Seaboard Corp.	21.900	72.220	3.30
Smithfield Cos.	1.020	0.000	0.00
Smithfield Foods Inc.	41.130	0.000	0.00
Smucker (J.M.) Co.	20.471	57.623	2.81
Sun-Diamond Growers of California	142.700	0.000	0.00
Sunkist Growers Inc.	28.394	0.000	0.00
Thorn Apple Valley Inc.	13.300	0.000	0.00
Tree Top Inc.	28.128	0.000	0.00
Tri/Valley Growers	25.781	0.000	0.00
Tyson Foods Inc.	352.00	0.000	0.00
Universal Foods Corp.	45.000	139.231	3.09
Valhi Inc.	12.107	0.000	0.00
Warner-Lambert Inc.	16.300	801.000	49.14
Welch Foods Inc.	49.500	0.000	0.00
WLR Foods	37.002	0.000	0.00
Wrigley (Wm. Jr.) Co.	34.452	634.678	18.42

Source: Economic Research Service

provide. As a result, the tradeoff between exporting and other supply arrangements for foreign markets, especially noticeable in the manufacturing sector, is not present in these sectors.

Strategies of Multinational Food Firms

Firm strategies in the global market for processed foods, their motivation, and their implications are described in this section. Expansion beyond the domestic market allows firms to pursue growth opportunities unavailable in the domestic market, to spread risk through geographic diversification, and to exploit brand and technology-related intangible assets. For example, the relatively slow population growth, the maturity of processed food markets, and the existence of high domestic market shares in some food-processing industries contribute to lower growth potential in U.S. food markets relative to some foreign markets. In addition, moving beyond the domestic market, U.S. food manufacturers may reap further benefits from the large investments they make in establishing brand names.

As firms move to a global marketing strategy, they choose from among a number of production and distribution arrangements: (1) Produce in their domestic market and export their product abroad, possibly using a foreign licensee or joint venture arrangement to distribute the product in the foreign market; (2) License production of the good for the foreign market to another firm; (3) Use a joint venture arrangement to produce the good in a foreign market with a partner; (4) Acquire a foreign affiliate, either through acquisition of an existing firm in the foreign market or greenfield investment, to produce and sell the product in a foreign market; and (5) Produce in a market other than the domestic market through a licensing agreement, joint venture, or a wholly owned foreign affiliate and export to another foreign market. For food manufacturers, the choice of arrangement depends on the feasibility of production outside the domestic market and the tradeoff between the risk in the foreign market and the firms' desire to maintain control over the product and its placement in the market.

To better understand the motives underlying firm strategies for accessing foreign markets, the Economic Research Service (ERS) of USDA and Agriculture and Agri-Food Canada (AAFC), in a joint study, conducted personal interviews with senior management officials of 17 multinational food-manufacturing firms with operations in the United States and Canada (Vaughan, et al., 1994). The median level of sales for these firms was \$5.9 billion in 1992. All firms except one used a variety of methods to serve markets outside their home country. For 15 firms, foreign affiliates accounted for the highest proportion of sales outside the home country. All 17 firms used exports to access markets outside their home country, although export shares of firm sales were typically small. Several of the firms used exports to supply foreign markets only if the foreign market was unable to support local production. One firm was a clear exception, with exports accounting for about 50 percent of total sales. Licenses accounted for a small share of firms' sales—only one firm had a strong commitment to their use worldwide. The following discussion draws heavily from this joint study.

The fundamental basis for firms' choosing production abroad to supply foreign markets seems to lie in their desire to capitalize on existing intangible investments in their brand, knowledge, and reputation, while serving foreign markets in a cost-effective manner. For this reason, firms generally prefer foreign affiliate arrangements where they possess majority ownership in local production facilities and exert some control over management.

A foreign affiliate enables the parent firm to capitalize on intangible investments because it allows for greater control over the quality, distribution, and presentation of the product in the foreign market. It also enhances the ability of the firm to produce a good suited to the foreign customers' needs and preferences. These ownership benefits make exports less attractive and provide a strong motivation for foreign production by food-manufacturing firms.

Despite the strong motivations for foreign affiliate ownership, processed food manufacturers do choose other methods of supplying foreign markets, with their choice predicated on a number of factors.

These factors can be categorized under two headings: Feasibility of foreign production and risk-control tradeoff.

Feasibility of Foreign Production

The feasibility of production outside the home market affects firms' choices of production location and, thereby, may dictate the choice of strategy. If production outside the home market is infeasible (e.g., California wine cannot be produced in a foreign country), export from the home market becomes the only viable alternative for firms to supply foreign markets. Firms consider several explicit costs when determining the feasibility of production in a market. Among the most important cost considerations for food manufacturers are the ability to achieve economies of scale, the cost and availability of inputs, and delivery costs. In addition to these explicit costs incurred from production, demand considerations and the implicit costs incurred from barriers to entry and the infrastructure of the market may also play a role in determining the feasibility of production in a market.

With economies of scale, a primary concern for the parent firm involves the ability of foreign production to achieve cost efficiencies from large-scale production comparable to those of the parent's home units. If no present or future potential exists for achieving economies of scale in a foreign market, export or licensing offers a more attractive alternative for a firm entering the market. Though economies of scale focus on cost efficiencies, large-scale production requires consideration of demand constraints (e.g., the level of per capita income, the size of the population), other supply conditions, (e.g., the level of competition in a market), and the infrastructure for transporting and storing foods. For example, a foreign market with high per capita income, an infrastructure that supports frozen food storage, and few other suppliers possesses good potential for achieving economies of scale for manufacturers of prepared and frozen foods. The absence of any of these characteristics in the foreign market reduces the likelihood that demand will be sufficient to capture economies of scale with production in the market and increases the likelihood that firms will

choose to use exports from another market, or perhaps licenses, to supply the market.

The location of food-processing industries that require a large component of raw agricultural materials, rather than semi-processed ingredients, will be strongly influenced by the availability of the primary ingredient. In these cases, a country's comparative advantage in the production of the required raw agricultural input may dictate a firm's choice of production location, (e.g., firms that can pineapples tend to locate their processing facilities near pineapple plantations). If a country does not have a comparative advantage in growing pineapples, it is unlikely that a firm will locate a canning facility within its borders. For firms using processed agricultural ingredients or, alternatively, firms using agricultural ingredients that are easily purchased in the world market, ingredient requirements have less impact on their choices.

Though not related to production costs, costs incurred in the delivery of a firm's product from the point of production to the consumer affects the relative feasibility of production. Even if a firm can achieve identical cost efficiencies in both the home and foreign market, high delivery costs may make export from the home market relatively less profitable. If these costs reflect high transport costs, savings occur when firms locate production close to the market served. Alternatively, if these costs reflect high tariffs, savings occur when firms locate within the foreign market. In either case, high delivery costs to a foreign market increase the likelihood that production, through either a license, joint venture, or wholly owned subsidiary, will occur in a foreign market.

In addition to the explicit costs considered by firms in choosing among global market strategies, firms may also face implicit costs in overcoming barriers to entry in new markets. For example, difficulties in accessing and establishing a foreign distribution system may increase the cost of entering a market with exports. Effectively reducing these costs may entail a distribution arrangement with a licensee or a joint venture partner that possesses a distribution system within the market.

The feasibility of production in a foreign market changes with market conditions. Food manufacturers actively pursue growing markets. When firms first enter these markets, demand for their product may be insufficient to warrant production in the foreign market. In this case, the firm may use exports to develop the foreign market. As the firm increases the demand for its product, the ability of a foreign plant to capture cost advantages from economies of scale increases, and foreign production becomes a more feasible alternative. Eventually, the firm may choose to produce abroad.

Risk and Control

Food manufacturers' investments in brand names give them an incentive to maintain the quality and reputation of their product. Failure to ensure a product's quality or reputation diminishes the value of brand and, therefore, the firm's investment. By exerting control over the production and distribution of their products, firms can maintain a consistent level of product quality, deliver their product in a timely manner, and respond quickly to consumer needs. Allowing another firm to gain control in either production or distribution of a branded good increases the potential for a loss in the value of the firm's brand or reputation.

The strategies available to firms allow for varying degrees of control over the production and distribution process. Both export and production by a wholly owned foreign affiliate yield the same level of control over the production process, but not of the marketing or distribution process. Export to a disinterested party in a foreign market holds no guarantee of correct product placement or delivery in a market. In the case of exports, control over the distribution process can be gained through distribution licensing arrangements, joint ventures, or wholly-owned distribution affiliates in the foreign market. The success of the licensing and joint ventures, however, depends on cooperation among the parties involved. By contrast, with ownership of a foreign affiliate, control over the production process generally coincides with control over the distribution process within the market.

Exercising control over production and distribution with licensing or joint ventures is more difficult given the involvement of a second party. Without a clear convergence of interests, disputes over product promotion, placement, quality, management, or the distribution of profits may arise. Of course, these problems can be avoided through appropriately structured agreements, but the difficulty of structuring and enforcing agreements to maintain the desired level of control often leads food manufacturers to use other methods. In some sense, therefore, the level of control offered by each strategy lies along a continuum, with wholly owned foreign affiliates providing the firm with the greatest control in a foreign market and exports providing the least.

In choosing among strategies, firms must balance their desire for control with the exposure to risk each strategy engenders. In general, foreign markets may pose greater risks than home markets because of a firm's lack of knowledge or experience with the culture, tastes and preferences, and business practices of a foreign market. Additional risks may exist in foreign markets characterized by economic or political instability, an insufficient infrastructure, or an unreliable or poorly trained workforce.

Among firm strategies, exports and licensing minimize the financial risk associated with foreign markets. In both cases, firms and their assets remain relatively insulated from foreign market risks. At the other end of the risk spectrum, ownership of a foreign affiliate and the financial investment it entails potentially exposes a firm to the greatest risk. Joint ventures, which require a lower financial commitment, fall in the middle of the spectrum depending on the extent of the firm's ownership of the joint venture.

Comparing risk and control considerations reveals a tradeoff faced by firms in choosing among strategies. Wholly owned foreign affiliates offer the greatest control over production and distribution but expose the firm to the greatest financial risk. Licensing, on the other hand, is a low-risk strategy but offers less direct control over both production and distribution. Exports, also a low-risk alternative, offer more control over production, but, in the absence of a distribution licensing agreement or joint venture, offer little

control over the distribution process. With respect to both risk and control, joint ventures remain in the middle of the spectrum.

As the degree of risk varies among markets and firms, so does the tradeoff between risk and control. For example, the political and economic stability of most Western European markets coupled with a fully developed infrastructure makes them considerably less risky than most markets in Latin America. Therefore, the tradeoff between risk and control for firms, regardless of their international experience, will be a smaller consideration in Western Europe than in Latin America. Alternatively, if a firm has substantial experience in Latin American markets, the tradeoff between risk and control will be smaller than that of firms with little or no experience.

As firms' knowledge of markets increases over time, the perception of risk changes, affecting the tradeoff between risk and control and, ultimately, the strategies firms choose. For example, firms that perceive a market as risky due to their lack of knowledge might initially avoid ownership of affiliates. Instead, they may choose exports, licenses, or a joint venture with low financial commitment to minimize their exposure to risk. As familiarity with the market increases, risk incurred from lack of market knowledge falls, and firms may move toward strategies that offer greater control, namely joint ventures and wholly owned affiliates.

The preceding discussion suggests that the optimal strategy for firms depends on product, firm, and market characteristics. For example, exports are more likely to occur for products with low delivery costs, products containing ingredients not readily available in the global market, products sold to nearby, risky, or low-sales markets, and or products sold by firms with little experience in foreign markets. The fewer of these characteristics possessed by the product, firm, and market, the more likely it is that the firm will choose production abroad as a long-term strategy.

This discussion also suggests that firms may use exports upon initial entry in a foreign market because of inadequate demand for their product or because market conditions and/or their inexperience make foreign production too risky. Over time, as these

situations improve—demand increases, market conditions improve, or firms gain more international experience—firms may switch from exports to foreign production. In this sense, foreign production substitutes for exports.

Multinational Firms

By compiling operating and investment data on multinational food firms, considerable insight is gained into the general patterns of the organization of multinational food manufacturers, their behavior in a global market context, and implications for U.S. policy. In the following sections, U.S.-based firms are described as a group. These data provide indirect verification of some of the previous observations on firm strategy. Additional support for those observations is found from an evaluation of firms based outside the United States.

U.S.-Based Multinational Food Manufacturers

The ERS firm-level data base of U.S. multinational food manufacturers provides data for 32 firms for the years 1988 to 1994 (table 23). Average annual shipments (sales) for these firms was \$9.9 billion in 1994, up from \$6.6 billion in 1988. Most firms are diversified with processed food sales accounting for 65 percent of total company sales in both 1988 and 1994. On average, 69 percent of processed food sales came from U.S. operations in 1994, down from 73 percent in 1988. Sales from affiliate operations in foreign countries grew from an average of \$1.2 billion per firm to \$2 billion in 1994. Average annual exports from U.S. operations were much smaller than affiliate sales, but increased rapidly from \$85 million to \$264 million per firm.

For all 32 firms, sales from their foreign affiliates grew at an annual average rate of 9.3 percent from \$37.3 billion in 1988 to \$63.6 billion in 1994 (table 24). FDI propensity, defined as foreign affiliate sales as a share of total food sales, rose from 27.1 percent to 31.1 percent (table 23). During 1988-94, FDI propensity increased for 25 of the 32 firms; only four firms had an absolute decline in foreign affiliate sales. For 15 firms, foreign affiliate sales exceeded

\$1 billion. For all 32 firms, FDI sales averaged 7.5 times larger than their U.S. exports of processed food products. Still, exports from these firms' U.S. operations grew even faster than sales of foreign affiliates.

Exports from these firms' U.S. operations grew at an average annual rate of 20.8 percent from \$2.7 billion in 1988 to \$8.4 billion in 1994 (table 25). On average, exports as a percent of U.S. food sales, defined as export propensity, rose from 2.7 to 6.0 percent (table 23). In 1988, the export value for 18 of these 32 firms was less than 2 percent of their U.S. sales. By 1994, only one of firm's exports were less than 2 percent of sales. During 1988-94, export propensity increased for 28 of the 32 firms.

The data in tables 24 and 25 also provide insights into the dynamics of multinational corporations' foreign direct investment and export behavior. Earlier it was suggested that, in some circumstances, exports may be replaced by production abroad. The extent to which this behavior defines the relationship between firm exports and FDI might be verified, in part, through closer examination of the data. To that end, the 32 firms were divided into two groups on the basis of their sales of their foreign affiliates in 1988. The 18 firms in group I all had relatively high FDI propensities (over 15 percent of sales from foreign affiliates) in 1988. The 14 firms in group II all

Table 23—Average characteristics for 32 leading U.S. food manufacturing firms, 1988-94

	1988	1994
	<i>Million dollars</i>	
Value of total shipments (worldwide)	6,649.7	9,891.3
Value of total processed food shipments	4,301.0	6,394.7
As a percent of total shipments	64.7	64.6
Food shipments from U.S. operations	3,170.3	4,405.4
As a percent of total food shipments	73.7	68.9
Food shipments from foreign operations	1,166.4	1,987.7
As a percent of total food shipments	27.1	31.1
Processed food exports from U.S. operations	84.7	263.7
As a percent of U.S. food shipments	2.7	6.0

Source: ERS firm-level data base.

Table 24—Sales by foreign affiliates of U.S. food manufacturing firms, 1988 and 1994

Company	1988		1994		Growth in sales, 1988-94
	Sales	Share of total food sales	Sales	Share of total food sales	
	\$1,000	Percent	\$1,000	--Percent--	
Coca Cola Co.	4,319,234	54.0	11,080,000	68.5	156.5
Philip Morris Cos. Inc.	8,556,063	33.2	10,113,000	28.1	18.2
PepsiCo, inc.	2,030,000	24.9	6,339,400	35.3	212.3
CPC Int'l, Inc.	2,656,500	56.5	4,780,000	64.4	79.9
Heinz (H.J.) Co.	2,191,647	41.8	3,458,287	42.8	57.8
Kellogg Co.	1,762,216	40.5	2,721,200	41.5	54.4
Archer Daniels Midland Co.	183,555	3.0	2,665,504	26.6	1,352.2
Sara Lee Corp.	1,739,842	23.9	2,344,000	31.0	34.7
Campbell Soup	1,503,304	26.5	2,120,000	31.7	41.0
Dole Foods Co.	917,069	40.4	2,091,000	59.8	128.0
RJR Nabisco	2,981,000	30.2	1,970,000	25.6	-33.9
Quaker Oats Co.	1,584,200	35.1	1,926,500	32.4	21.6
Chiquita Brands Int'l	1,144,483	32.7	1,703,964	43.0	48.9
Con Agra Inc.	330,545	4.4	1,673,600	8.0	406.3
Ralston Purina	1,140,000	24.1	1,500,000	27.3	31.6
Anheuser Busch	514,974	6.0	909,200	8.0	76.6
Warner-Lambert	15,000	1.9	889,000	65.0	5,826.7
Borden Inc.	1,480,200	27.5	865,400	26.0	-41.5
Proctor & Gamble	73,705	2.5	810,000	24.6	999.0
Wrigley Co.	320,782	36.0	808,672	50.6	152.1
Multifoods	492,376	29.0	593,239	25.8	20.5
American Brands	2,000	0.5	507,200	40.0	25,260.0
Hershey Foods	199,401	9.2	482,116	13.4	141.8
McCormick & Co.	171,400	15.2	271,800	18.0	58.6
Pet Inc.	517,418	22.0	258,400	16.3	-50.1
General Mills Inc.	311,466	8.3	186,000	3.7	-40.3
Universal Foods	64,755	9.0	184,376	22.0	184.7
Gerber Products	36,931	7.0	126,194	15.1	241.7
Smucker (J.M.) Co.	16,843	4.6	66,092	10.5	292.4
Brown Forman	46,445	5.5	63,199	7.2	36.1
Clorox	4,612	2.0	54,759	11.0	1,087.3
Curtice-Burns Inc.	16,240	2.5	42,985	5.6	164.7
Total	37,324,206	27.1	63,605,087	31.1	70.4

Source: Economic Research Service, USDA.

Table 25— Food and beverage exports of U.S. firms with foreign affiliates, 1988 and 1994

Company	1988		1994		Growth in exports, 1988-94
	U.S. exports	Share of U.S. food sales	U.S. exports	Share of U.S. food sales	
	<i>\$1,000</i>	<i>Percent</i>	<i>\$1,000</i>	<i>--- Percent ---</i>	
Philip Morris Cos., Inc.	263,541	1.5	1,864,000	7.2	607.3
Con Agra Inc.	215,456	3.0	1,635,900	8.5	659.3
Archer Daniels Midland	978,968	16.5	919,860	12.5	-6.0
Anheuser Busch	282,378	3.5	731,800	7.0	159.2
PepsiCo Inc.	21,428	0.4	450,548	3.9	2,002.6
General Mills Inc.	73,940	2.2	305,000	6.3	312.5
Hershey Foods Corp.	39,372	2.0	238,061	7.6	504.6
Coca Cola Co.	93,932	2.6	235,000	4.6	150.2
Heinz (H.J.) Co.	61,051	2.0	208,746	4.5	241.9
Sara Lee (J.M.) Co.	38,369	0.7	184,000	3.5	379.6
Quaker Oats Co.	14,619	0.5	181,300	4.5	1,140.2
Campbell Soup	30,000	0.7	174,000	3.8	480.0
Ralston Purina	39,865	1.1	147,800	3.7	270.8
Kellogg Co.	42,679	1.7	131,355	3.4	207.8
Chiquita Brands Int'l	85,835	3.6	112,887	5.0	31.5
American Brands	13,818	3.5	106,000	13.9	667.1
Proctor & Gamble Co.	124,446	4.3	101,000	4.1	-18.8
RJR Nabisco	14,000	0.2	97,400	1.7	595.7
CPC International Inc.	30,652	1.5	82,524	3.1	169.2
Brown Forman Corp.	51,384	6.5	66,794	8.2	30.0
Dole Foods Co.	1,360	0.1	56,280	4.0	4038.2
McCormick & Co. Inc.	61,552	6.4	55,859	4.5	-9.2
Borden Inc.	21,872	0.6	49,300	2.0	125.4
Gerber Products Co.	5,385	1.1	48,565	6.8	801.9
Pet Inc.	24,335	1.3	45,100	3.4	85.3
Clorox	1,266	0.6	42,978	9.7	3,294.8
Wrigley (Wm. Jr.) Co.	4,851	0.9	37,425	4.8	671.5
Multifoods	12,056	1.0	34,038	2.0	182.3
Universal Foods Corp.	35,975	5.5	32,626	5.0	-9.3
Smucker (J.M.) Co.	7,350	2.1	26,985	4.8	267.1
Warner-Lambert Inc.	8,000	1.2	19,200	4.0	140.0
Curtice-Burns Inc.	11,189	1.8	16,073	2.2	43.7
Total	2,710,924	2.7	8,438,404	6.0	211.3

Source: Economic Research Service, USDA.

had relatively low FDI propensities in 1988 (less than 15 percent of sales from foreign affiliates).

From 1988 to 1994, FDI propensity rose for 13 of the 18 firms in group I. During this period, export propensity also increased for all but one of these 13 firms. Firms with simultaneous increases in both FDI and export propensities include: Coca Cola, with an increase in FDI propensity from 54 to 68 percent and an increase in export propensity from 2.6 to 4.6 percent; PepsiCo, with FDI propensity up from 25 to 35 percent, while its export propensity rose from 0.4 to 3.9; CPC International, FDI propensity up from 56 to 64 percent and export propensity up from 1.5 to 3.1 percent; Kellogg, FDI propensity up from 40 to 42 percent and export propensity up from 1.7 to 3.4 percent; Campbell Soup, FDI propensity up from 26 to 32 percent and export propensity up from 0.7 to 3.8 percent; and Sara Lee, FDI propensity up from 24 to 31 percent and export propensity up from 0.7 to 3.5 percent. McCormick started the period with higher than average exports, but saw its exports fall from 6.4 percent of sales in 1988 to 4.5 percent in 1994. All 5 of the 18 firms whose FDI propensities declined saw export propensities rise. For example, Philip Morris's exports rose up from 1.5 to 7.2 percent to become the largest exporter of processed foods among U.S. multinational corporations.

In group II, 13 of the 14 firms increased their FDI propensities—only General Mills had a decline, largely because it does not include sales from its international joint ventures in its annual report. Group II firms tended to have substantially larger export propensities in 1988 than group I firms. Exports as a percent of sales increased for 11 of these 14 firms during 1988-94. American Brands stands out as an example of rapid international expansion. This firm's FDI propensity rose from 0.5 to 40 percent while at the same time its export propensity increased from 3.5 to 13.9 percent. Widely diversified Con Agra nearly doubled its FDI propensity from 4.4 to 8 percent while exports as a percent of sales more than doubled from 3.0 to 8.5. Smuckers is an example of a much smaller multinational, which increased its FDI propensity from a modest 4.6 percent to 10.5 percent, while increasing its export propensity from 2.1 to 4.8 percent. Export propensity fell for three firms in group II,

but the decline was very small for two of the three. For Procter & Gamble, exports edged down from 4.3 to 4.1 percent of sales while FDI propensity rose substantially from 2.5 to 24.6 percent. Universal Foods' exports declined from 5.5 to 5.0 percent of sales. Export propensity by Archer Daniels Midland, the third largest exporter of these 32 firms, declined from 16.5 to 12.5 percent, while its FDI propensity rose from 3.0 to 26.6 percent.

While firms may find it beneficial to replace exports with production abroad in some circumstances, the preceding analysis does not confirm that this behavior dominates firm strategies. At the firm level of analysis, the data fail to show a decline in exports coincident with an increase in foreign affiliate sales.

Earlier discussion suggested that variations among regions and firms that lead to different strategic choices should also result in different patterns of plant ownership. Regions characterized by low risk, high delivery costs, easily available ingredient inputs, and potential demand that will allow firms to achieve economies of scale should also be characterized by a high degree of plant ownership (e.g., EU and North America). Similarly, firms with high levels of international experience should be involved in more foreign markets and possibly have greater exposure in markets perceived as risky by less experienced firms. One would also expect firms involved in the production of goods that require a large portion of unprocessed agricultural commodity as inputs to locate in foreign markets when those markets exhibit a comparative advantage in commodity production.

Canada and Mexico, in which 33 firms have affiliates, and Europe, with affiliates of 30 firms, have proved to be the most attractive regions for investment based on plant locations for 39 U.S.-based multinational food manufacturers in 1993; Africa and the Middle East prove the least attractive (table 26). Though the distribution of plants is heavily weighted to North America and Europe for all firms, differences in levels of international experience affect the distribution of ownership among regions. Sixteen firms own 10 or fewer foreign plants. Plant ownership of these firms outside the United States, Canada and Mexico is limited; the number of

Table 26—Geographic location of select U.S. multinationals' processed food plants (1992-1993)—Cont.

Company	Foreign	U.S.	Total	Number of plants							
				Canada & Mexico	Other Americas	European Community	Other Europe	Asia Pacific	Africa	Middle East	
Dole Foods Co.	12	15	27	0	5	4	0	3	0	0	
Intl Flavors & Fragrance Inc.	12	4	16	1	2	5	1	3	0	0	
Pet Inc.	11	20	31	3	1	4	0	3	0	0	
Seaboard Co.	10	9	19	0	8	0	0	0	2	0	
Wrigley (Wm. Jr.) Co.	10	7	17	2	0	2	1	4	1	0	
Anheuser Bush Cos. Inc.	9	80	89	0	0	9	0	0	0	0	
Chiquita Brands Int'l Inc.	6	4	10	1	5	0	0	0	0	0	
Hershey Foods Corp.	6	9	15	2	0	3	0	1	0	0	
Warner-Lambert Inc.	6	5	11	1	1	3	0	1	0	0	
Grace (W.R.) & Co.	5	4	9	1	0	4	0	0	0	0	
Bristol Myers Squibb	3	3	6	1	0	2	0	0	0	0	
Smucker (J.M.) Co.	3	12	15	1	0	1	0	1	0	0	
Brown-Forman Corp.	2	6	8	1	0	1	0	0	0	0	
Curtice-Burns Inc.	2	34	36	2	0	0	0	0	0	0	
Gerber Products Co.	2	3	5	0	1	0	1	0	0	0	
Clorox	1	5	6	1	0	0	0	0	0	0	
Dean Foods Co.	1	57	58	1	0	0	0	0	0	0	
General Mills Inc.	1	30	31	1	0	0	0	0	0	0	
Procter & Gamble Co.	1	16	17	0	0	1	0	0	0	0	

Table 26—Geographic location of select U.S. multinationals' processed food plants (1992-1993)—Cont.

Company	Foreign	U.S.	Total	Canada & Mexico	Other Americas	European Community	Other Europe	Asia Pacific	Africa	Middle East
	<i>Number of plants</i>									
Dole Foods Co.	12	15	27	0	5	4	0	3	0	0
Intl Flavors & Fragrance Inc.	12	4	16	1	2	5	1	3	0	0
Pet Inc.	11	20	31	3	1	4	0	3	0	0
Seaboard Co.	10	9	19	0	8	0	0	0	2	0
Wrigley (Wm. Jr.) Co.	10	7	17	2	0	2	1	4	1	0
Anheuser Bush Cos. Inc.	9	80	89	0	0	9	0	0	0	0
Chiquita Brands Int'l Inc.	6	4	10	1	5	0	0	0	0	0
Hershey Foods Corp.	6	9	15	2	0	3	0	1	0	0
Warner-Lambert Inc.	6	5	11	1	1	3	0	1	0	0
Grace (W.R.) & Co.	5	4	9	1	0	4	0	0	0	0
Bristol Myers Squibb	3	3	6	1	0	2	0	0	0	0
Smucker (J.M.) Co.	3	12	15	1	0	1	0	1	0	0
Brown-Forman Corp.	2	6	8	1	0	1	0	0	0	0
Curice-Burns Inc.	2	34	36	2	0	0	0	0	0	0
Gerber Products Co.	2	3	5	0	1	0	1	0	0	0
Clorox	1	5	6	1	0	0	0	0	0	0
Dean Foods Co.	1	57	58	1	0	0	0	0	0	0
General Mills Inc.	1	30	31	1	0	0	0	0	0	0
Procter & Gamble Co.	1	16	17	0	0	1	0	0	0	0

foreign-owned plants exceeds U.S.-owned plants for only two of the firms and only seven operate plants outside North America and Europe. By contrast, for the 16 firms with 20 or more foreign plants, five firms own more foreign than U.S. plants. Fourteen of these firms own plants outside North America and Europe; nine firms own plants in four or more regions. These 16 firms account for most of the plants owned in Latin America, Asia, Africa, and Eastern Europe, and all the plants in the Middle East.

Table 26 also illustrates the role that agricultural commodity input sometimes plays in plant location. Specifically, Chiquita and Seaboard locate 80 percent or more of their foreign processing facilities in Latin America and the Caribbean. Dole locates a majority of foreign processing facilities, 67 percent, in Latin America and Asia. Not coincidentally, each firm processes goods with a substantial component of a commodity ingredient that is well suited to the growing conditions in these regions.

Foreign-Based Multinational Food Manufacturers

To gain insights into the organization and market behavior of multinational food firms based outside the United States, Henderson, Vörös, and Hirschberg (1996) compiled data for a panel of the world's leading non-U.S. firms with food-manufacturing operations. While this panel is not necessarily a representative sample of non-U.S. food-manufacturing firms, it does include many of the leading firms that account for a significant share of processed food production in industrialized countries other than the United States. To provide a measure of the extent to which this panel depicts the food-manufacturing industry outside the United States, its share of total output of manufactured food is estimated (table 27). While not a statistically reliable sample, the firms in the panel appear to provide a reasonable representation of the industry in most of the industrialized world.

These are large firms; in the base period annual shipments or turnover averaged \$3 billion, total assets averaged more than \$2.3 billion, and firms employed on average more than 21,000 workers (table 28). Even though many of the firms are diversified, food

manufacturing appears to be their major business. Of their annual turnover, 75 percent is manufactured food and beverage products. Of their food and beverage products, on average 45 percent is manufactured in the firms' home countries; the remaining 55 percent is produced by affiliate operations in foreign countries. For the group as a whole, food operations account for 69 percent of the firms' total operating income, somewhat less than the product share.

Of the firms in the panel, 89 percent reported foreign operations; the remaining 11 percent reported operations only in their home market. Firm size appears to be associated with the extent to which a firm is multinational; for example, firms with foreign operations averaged \$2.8 billion in annual food sales compared with \$488 million for firms with no operations outside their home countries. Similar size comparisons exist when measured in terms of assets and employees.

Non-U.S. multinational food-manufacturing firms appear to adhere to the pattern, described earlier, of investing in foreign affiliate operations to exploit firm-specific advantages such as brand names and unique types or varieties of products. On average, the firms in the panel owned more than 38 food product brand names, operated in slightly more than 5 major food industries (defined at the U.S. 4-digit SIC level), and held more than 23 percent of their total assets in the form of intangibles such as brand names, corporate goodwill, and other firm-specific intellectual property (table 29).

A comparison of the multinational firms in the panel (firms with some foreign affiliate operations) that operate in the United States

Table 27—Shipments by the panel of leading non-U.S. food-manufacturing firms: Geographical coverage (circa 1990)

Region	Number of firms	Annual shipments	Share of region's total shipments
	<i>Number</i>	<i>\$Million</i>	<i>Percent</i>
European Union	62	145,252	32.3
Japan	15	42,501	16.6
Other OECD	28	63,806	29.6
Rest of world	8	4,914	NA

Source: Henderson, Vörös, and Hirschberg, 1996.

with those that have no U.S. affiliates reveals some pronounced differences (table 30). Overall, firms with U.S. affiliates are substantially larger than those with no U.S. operations: they have twice the average value of total corporate assets and twice the average annual value of total corporate sales. Further, non-U.S. multinational firms with U.S. affiliate operations are more oriented toward foreign operations in total. Shipments from all foreign operations accounted for 58.3 percent of total sales by these firms compared with 46.5 percent for firms with no U.S. affiliates. Further, for the firms with U.S. affiliates, shipments from their U.S. operations accounted for nearly half (45.1 percent) of all foreign operations. These observations suggest that firms with U.S. affiliates concentrate a greater proportional effort in one foreign market, the United States, than do other non-U.S. multinational food manufacturers.

In terms of corporate specialization, non-U.S. multinational food manufacturers with U.S. affiliate operations are somewhat less diversified into nonfood business than are those with no foreign

Table 28—Characteristics of the panel of leading non-U.S. food-manufacturing firms (circa 1990)

	Mean	High	Low
	<i>Million dollars</i>		
Food and beverage operations			
Value of shipments	2,253.2	28,103.7	100.7
Operating income	216.4	1,637.4	0.9
Shipments from home country operations	1,017.6	4,750.6	42.7
Shipments from foreign operations	1,235.6	27,568.4	0
Foreign shipments as a percent of total	54.8	98.1	0
Consolidated operations			
Value of shipments	3,017.7	36,254.3	110.8
Operating income	314.6	3,332.1	1.0
Net income	162.7	1,799.2	-33.4
Total assets	2,621.1	21,576.4	35.7
Number of employees	21,070	300,000	335

Source: Henderson, Vörös, and Hirschberg, 1996.

operations in the United States. For example, food accounts for about 83 percent of total sales for the firms with a U.S. presence compared with just 73 percent for the others. This may suggest that, for a foreign firm to successfully operate food-manufacturing facilities in the United States, in addition to being large it must focus a substantial part of its business on food.

With regard to corporate earnings, however, differences between foreign firms with and without U.S. affiliates disappear. There is virtually no difference in corporate operating margins between the two sets of firms, and overall return on total assets is about equal. This implies that decisions by non-U.S. food-manufacturing firms to acquire or develop affiliate operations in the United States are based primarily on the firm's ability to compete in the United States—determined in part by its degree of specialization in food and the size of its corporate resources—more so than on the opportunity to extract extraordinary profits from the U.S. market.

Similarities Among Multinational Food Firms

Regardless of the nationality or headquarters location, international market behavior of multinational firms in the processed food sector is remarkably similar. While non-U.S.-based multinational firms appear to have a greater orientation to foreign markets than do U.S.-based firms (when measured by the share of total sales originated in foreign affiliate operations or sold as exports from the home country), sales from foreign operations are of significantly greater importance than are exports, irrespective of nationality. For non-U.S. multinationals the ratio of FDI-related shipments to

Table 29—Firm-specific intellectual properties of leading non-U.S. multinational food-manufacturing firms (circa 1990)

Item	Average
Number of food product brands	38.2
Number of food manufacturing industries	5.1
Number of Brands/industry	7.5
Intangible assets as a percent of total assets	23.1

Source: Henderson, Vörös, and Hirschberg, 1996.

exports is about 4-to-1; for U.S. multinationals in the comparable time period it was about 9-to-1 (table 31).

Export behavior appears to be more a function of the geographic location of production facilities than the nationality of the firm. The U.S. Department of Commerce, BEA data on foreign direct investment show, for example, that foreign affiliates of U.S. food-processing firms are more export-oriented than are their U.S. operations. On average, U.S. parent firms export about 4 percent of the output from their home country facilities, whereas exports average 19 percent of the output of their foreign affiliates (BEA 1995A). Further, exports as a share of total shipments vary widely among foreign affiliates of U.S. firms. Those located in Canada, for example, exported an average of about 5 percent of their output, paralleling all Canadian food processors, while exports of those located in the European Union averaged 25 percent, again similar to

Table 30—Operating characteristics of non-U.S. multinational food-manufacturing firms in the U.S. and elsewhere (circa 1990)

Item	Unit	Firms with U.S. operations	Firms with no U.S. operations
Assets			
Average total assets	\$million	5,148.6	2,124.9
Shipments			
Average total sales	\$million	5,427.4	2,329.0
U.S. shipments/total shipments	percent	26.3	0
U.S. shipments/foreign shipments	percent	45.1	0
Foreign shipments/total shipments	percent	58.3	46.5
Specialization			
Food shipments/total shipments	percent	83.1	73.2
Earnings			
Operating income/total sales	percent	9.5	9.5
Net income/total assets	percent	5.8	6.0

NA = Not applicable.

Source: Henderson, Vörös, and Hirschberg, 1996.

the export performance of all EU-located food processors (fig. 6).

Similarly, exports as a share of total shipments for U.S. affiliates of non-U.S.-based multinational food-processing firms averaged about 5 percent, only marginally higher than the average for home operations of U.S.-based multinationals and well below the 12.6 percent average for non-U.S. firms across all geographic areas. Further, much of the trade by U.S. affiliates of non-U.S. multinationals is intra-firm: 48 percent of their exports was shipped to foreign parents, and foreign parents originated 58 percent of the imports received by their affiliate operations in the United States (BEA 1995B). Thus, the relative importance of exports to third-party buyers appears to be not much different for foreign-owned food-processing operations in the United States than for other U.S. plants.

Multinational food manufacturers also make considerable use of international licensing. Perhaps the most is known about international brand name licensing. In a survey of 120 of the world's largest food-manufacturing corporations, Henderson and Sheldon (1992) found that at least half of those with international operations engaged in some form of international product or brand-name licensing. Based on anecdotal evidence, they suggested that the total value of international sales of licensed food products exceeded that of direct product trade. U.S. and non-U.S. multinationals appear to be equally aggressive in brand-name licensing; among the well-known U.S.-owned names licensed to firms abroad are Ocean Spray, Spam, Budweiser, and Kraft; among those owned by non-U.S. firms are Almond Joy, Killian's Red, Lipton, and Toblerone.

Table 31—Foreign operations of the world's leading multinational food manufacturing firms (circa 1990)

Item	U.S. firms	Non-U.S. firms
	<i>Percent</i>	
Shipments from foreign affiliates as a percent of total sales	27.0	54.8
Exports from home country as a percent of total sales	3.0	12.6

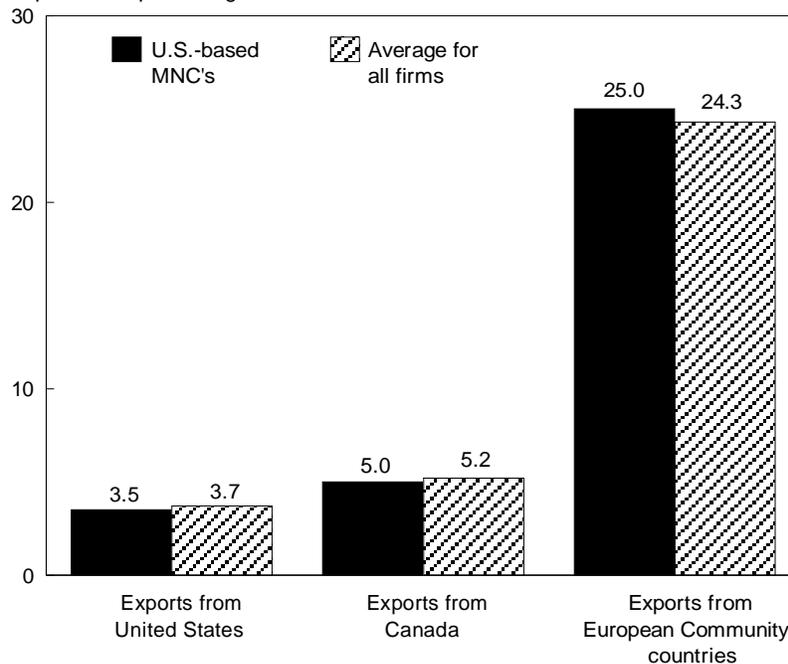
Source: Henderson, Vörös, and Hirschberg, 1996.

Henderson and Sheldon's interviews with executives of firms engaged in international licensing reveal that this strategy is often used in situations where a substantial investment in firm-specific intangible assets exists, for example, a heavily advertised brand name (for example, Budweiser), or a unique and well-accepted product characteristic (for example, Coca-Cola), but where direct trade is constrained by such things as bulky (like water) or highly perishable (like milk) ingredients or by trade restrictions such as tied distributors or import quotas. Licensors view it as a means of geographic market extension; licensees view it as a means of product line extension. Licenses are often linked to product-specific technology, for example, caramelized chocolate bars or cold-filtered draft beer, as a means for the product developer/licensor to maintain an equity position in the product once the licensee masters the production technology.

Figure 6

U.S. exports and foreign affiliate sales of processed food

Exports as a percentage of total sales



Source: Henderson and Handy, 1994.

Licensing is also sometimes linked to other international market behavior. Executives of multinational firms frequently discuss it as an intermediate strategy between direct product trade and direct foreign investment. Further, licenses often provide for the supply of critical ingredients by the licensor, such as cola syrup or chocolate paste, thus facilitating trade in such intermediate products.

Many multinational firms extend their international activities through joint ventures. The formation of a joint venture by General Mills and Nestlé to produce and market ready-to-eat breakfast cereals in Western Europe and other non-U.S. markets in direct competition with market leader Kellogg generated substantial interest in this phenomenon. Yet, few examples of long-standing joint ventures in the food sector can be found. A study of joint ventures across all industries involving U.S. firms found that their average life was just 3.5 years (Harrigan 1988). Specific to the food industries, a study of joint ventures in the Canadian food-processing sector found that of 110 such entities in existence sometime between 1981 and 1988, 33 percent were created and 38 percent were dissolved during that period (Geringer 1990).

The Relationship Between Trade and Foreign Direct Investment

Given the current U.S. policy of increasing the export of high-value agricultural products, an important issue is whether multinational firms' global strategies generate or displace exports from the home country. The analysis presented earlier provided some insight on this issue by comparing sales growth of exports and foreign affiliate between 1988 and 1994. While this provides some evidence of the relationship between exports from the home country and foreign affiliate sales, it does not address directly the time-dependent relationship between exports and alternative strategies. More specifically, it does not establish a causal relationship and, therefore, it cannot answer the question of whether foreign direct investment by food manufacturers leads to an increase or decrease in the export of processed food products.

Anecdotal evidence provides support for both the displacement and creation of exports from foreign direct investment. As discussed above, firms may use exports to enter a market but eventually move to foreign direct investment. This strategy suggests that foreign direct investment displaces exports. For example, CPC initially entered the South American market for salad dressing by exporting from the United States. As CPC's market presence grew, it became more cost effective to build a modern plant in South America rather than export from the United States. Alternatively, increased foreign direct investment may generate trade for several reasons. First, foreign affiliates may not produce all of a firm's product line. Exports will then be used to "fill-in" the product line of the foreign affiliate. Second, the foreign affiliate may make it easier for the firm to recognize and respond to new export opportunities in neighboring countries. Further, firms can exploit trade opportunities with their foreign affiliates.

Some sense of the relationship between exports and sales of foreign affiliates can be gained by examining the effect of past growth in exports on the current growth and level of foreign affiliate sales and the effect of past growth in foreign affiliate sales on the current growth and level of exports. This approach provides insight on the extent to which firms lead FDI with exports or vice versa and, as a result, whether FDI creates or displaces exports. Correct evaluation of this phenomenon requires firm-level data on individual products and foreign markets. Because these data are not available, Malanoski, Handy, and Henderson (1995) used two sets of data on trade and FDI to investigate the time-dependent relationship between the two strategies. The first data set consists of U.S. Department of Commerce data on trade and foreign affiliate sales in processed foods (SIC 20). The second data set uses ERS firm-level data. In neither case were they able to find evidence of either export displacement or creation from foreign affiliate sales. They did find evidence, however, that exports may serve as a precursor to foreign direct investment.

Malanoski, Handy, and Henderson also explored the extent to which differences among countries affect the relationship between exports and FDI. As discussed above, use of exports, foreign affiliates, or

other strategies varies among products, firms, and countries. Indirect evidence from firms' plant locations also suggests that both regional and firm characteristics affect firms' choices. Comparing OECD and non-OECD countries, they found that past growth in sales of foreign affiliates is negatively related to the current level of exports for OECD countries; for non-OECD members, the relationship is positive. In addition, past growth in exports is negatively related to current levels of FDI for OECD members, but positively related for non-OECD member countries. In general, the relationship between FDI and exports for OECD members was found to be competitive, while the relationship for nonmembers was complementary. These results suggest that FDI displaces exports in highly developed industrial countries (OECD members) and creates exports from the less-developed (nonmember) countries.

The dichotomous results for OECD and non-OECD members were also found when countries were grouped by region. The results for Central and South American countries mimic those of non-OECD members. The results for Western Europe and Canada mimic those of the OECD members, except that no significant relationship was found between past growth in foreign affiliate sales and current exports for the Western Europe group. The results for the Asia/Pacific region are also similar to those for non-OECD members. As with the Western Europe region, however, no significant relationship was found between past growth in foreign affiliate sales and current exports.

Using firm level data, Malanoski, Handy, and Henderson examined four aspects of firms—product diversity, advertising intensity, firm size, and international experience—to determine if the time-dependent relationship between trade and FDI differed among firms. For each characteristic, the sample was subdivided into two groups and the results compared. They found a positive relationship between past growth in FDI and current exports for the groups classified as highly diverse and large. The results for product diversity provide some support for the premise that FDI generates exports to “fill in” product lines of foreign affiliates. Because it may be infeasible for foreign affiliates to replicate a highly diverse product line, it is more likely that highly diverse firms use exports

to “fill in” product lines after the establishment of a foreign affiliate. No other group provides indication of FDI either creating or displacing exports.

In another study, Overend, Connor, and Salin (1995) explored the relationship between exports and FDI over time for six food-manufacturing firms. They discovered three disparate patterns among the firms: two companies display complementary export-FDI strategies; two display a strategy of substitution between exports and FDI; and two display no relationship between exports and FDI. Though their sample is small, their results also suggest that the export-FDI relationship is ambiguous.

Although neither the Malanoski, Handy, and Henderson nor the Overend, Connor, and Salin studies is definitive, neither supports the presumption of substitution between exports and foreign affiliates as the predominant paradigm for multinational firms.

Multinational Behavior in Perspective

Global marketing of processed foods is primarily the undertaking of multinational firms with food-manufacturing and/or distribution operations. Principal strategies used for accessing foreign markets are exporting from home market facilities and producing abroad in affiliated works. Firms also use a variety of strategies to serve foreign markets in cooperation with foreign—usually host country—firms. Such strategies include licensing a foreign firm to produce under the originating firm’s brand or technology, operating jointly owned manufacturing/distribution facilities, and forming strategic alliances with foreign partners.

Generally received theories of firms and international trade tend to yield ambiguous predictions regarding the actual behavior of different firms, or firms in different countries. Indeed, discussions with executives of leading firms both in the United States and elsewhere suggest that firms approach international markets in a pragmatic, but often seemingly eclectic, manner. Even so, actual observations of the organization and behavior of multinational firms, combined with country-level data on processed food exports

and production under foreign affiliation, yield some empirical regularities, or general principles:

- Firms demonstrate a preference for serving foreign markets for processed foods through production in affiliated facilities located in the host country (FDI), rather than by exporting from home-country facilities. This preference is not country-specific, but is demonstrated with more-or-less similar intensity by firms regardless of their home-country affiliation.
- The propensity for firms to serve foreign markets through foreign affiliates does not necessarily result in a reduction of the firm's exports, nor is there evidence that the existence of foreign affiliates displaces exports.
- The choice of firms' methods of supply depends on product, firm, and market considerations. A firm's strategy to enter a foreign market is difficult to predict but often emphasizes exports from its home country in early stages, giving way to affiliation with host country operations in latter stages.
- There is no evidence of a consistent functional industry-wide relationship (either positive or negative) between FDI and trade. Many specific examples can be cited to document a substitution effect, other examples confirm a complementary effect, while still other examples show no relationship. Thus, generalizations should be treated with caution.